

3-D Printed Habitat - Design Competition

Completed Technology Project (2015 - 2015)



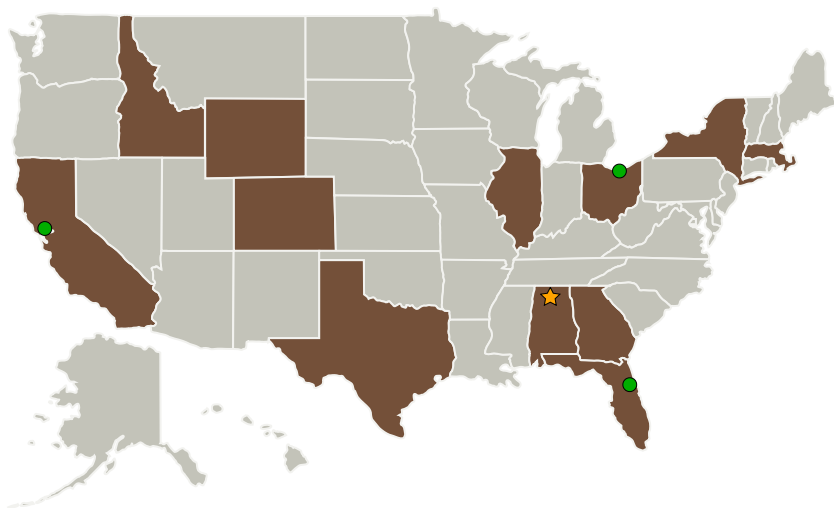
Project Introduction

The 3D-Printed Habitat Challenge seeks to develop the fundamental technologies necessary to manufacture habitats using indigenous materials, including recycled materials. The long-term vision is that habitat-manufacturing machines could someday be deployed for the Moon, Mars or beyond to autonomously prepare shelters for humans. The Design Competition is an architectural design activity which invites participants to design a habitat which utilizes additive construction advantages over traditional construction.

Anticipated Benefits

The long-term vision is that habitat-manufacturing machines could someday be deployed to the Moon, Mars or beyond to autonomously prepare shelters for the human explorers who follow.

Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
★ Marshall Space Flight Center(MSFC)	Lead Organization	NASA Center	Huntsville, Alabama
America Makes	Supporting Organization	Industry	
● Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California
Department of Defense(DoD)	Supporting Organization	US Government	Washington, District of Columbia
● Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio
● Kennedy Space Center(KSC)	Supporting Organization	NASA Center	Kennedy Space Center, Florida
United States Agency for International Development(USAID)	Supporting Organization	US Government	Washington, District of Columbia

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Marshall Space Flight Center (MSFC)

Responsible Program:

Prizes, Challenges, and Crowdsourcing

Project Management

Program Director:

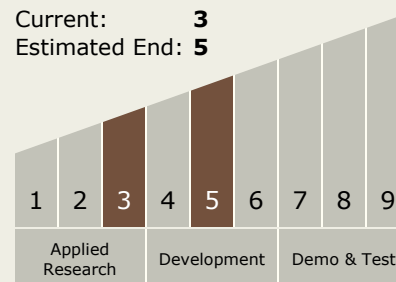
Amy P Kaminski

Program Manager:

Monserrate C Roman

Technology Maturity (TRL)

Start: 3
 Current: 3
 Estimated End: 5



Primary U.S. Work Locations

Alabama	California
Colorado	Florida
Georgia	Idaho
Illinois	Massachusetts
New York	Ohio
Texas	Wyoming

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Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>

Technology Areas

Primary:

- TX07 Exploration Destination Systems
 - └ TX07.2 Mission Infrastructure, Sustainability, and Supportability
 - └ TX07.2.3 Surface Construction and Assembly